Renewable Energy for the State Water Project

The Department of Water Resources is taking action to develop renewable energy in an effort to reduce its greenhouse gas emissions and achieve AB 32 goals. In addition to executing power contracts for the output from wind and solar projects constructed by others, DWR is exploring ways it can develop solar on its own property.

DWR has partnered with the University of California, which has a goal of becoming carbon neutral, to explore the feasibility of putting solar along or over the California Aqueduct. We have had informational discussions with three large global solar energy developers to explore the unique issues and challenges with such a project. Safety is a concern, as any installation would have to be moved quickly to accommodate an emergency response to a canal lining failure, which has occurred in various locations. There are also above ground pipelines and other utilities crossing the Aqueduct that must be considered. Vandalism is an issue in many remote locations along the Aqueduct – it is difficult to provide security.

Presently, UC and DWR are in the process of identifying a stretch of the Aqueduct that would be most suitable for a demonstration project, one that is located close to transmission and is free from other infrastructure. Then a request for proposals will be issued for a solar project. If this demonstration project is successful, it could be applied to other feasible sites along the State Water Project.

DWR is also working with the UC on development of a solar project on vacant property owned by DWR adjacent to one of its pumping plants in southern California. Both the UC and DWR are excited about our joint investigation of what might be commercially feasible for developing clean renewable solar energy along the Aqueduct while preserving the ability of DWR to safely maintain water deliveries.

DWR also recently issued a Request for Proposals for delivery of wind energy from a facility with a capacity of at least 5 MW. The RFP states a minimum annual amount of energy of 15,000 MWh and a maximum annual amount of 72,000 MWh. The pre-proposal conference has been held and final proposals were submitted in late January 2011.

The feasibility to add new small hydropower generation at two locations to the existing SWP is being explored by DWR as well as assessing the potential for wind development on Sherman Island in the Delta. This is in addition to existing small

hydropower generation resources in the SWP energy portfolio that qualify as renewable resources.

Pearblossom Operations and Maintenance Center, Southern Field Division

DWR has completed design of its first LEED-NC (Leadership in Energy and Environmental Design- New Construction) project at its Pearblossom Operations and Maintenance Center, Southern Field Division. This will exceed the Governor's Executive Order S-20-04 minimum of LEED-NC Silver as DWR is pursuing a LEED-NC Gold Level Certification for this new administrative office building.

In order to achieve LEED certification, the Operations and Maintenance Center will be built using strategies aimed at improving performance across all the metrics that matter most: energy savings, water efficiency, improved indoor environmental quality, stewardship of resources and sensitivity to impacts. This includes a 30 kW solar system to provide power to the facility. The construction contract has been awarded with work to start March 2011 and be completed by August 2012.